

WHAT IS CLAIMED IS:

1. An apparatus for conveying signals between a first circuit board and a second circuit board, said apparatus comprising:

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a dielectric substrate having a first side forming a first surface and a second side forming a second surface; and

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a plurality of contact pins each configured to convey electrical signals;

wherein each of said plurality of contact pins extends through said dielectric substrate and protrudes beyond said first surface and said second surface; and

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wherein one or more of said plurality of contact pins is formed using a pliable resistive material.

2. The apparatus as recited in claim 1, wherein said pliable resistive material has sufficient conductivity to convey said electrical signals between said first side and said second side.

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3. The apparatus as recited in claim 1, wherein said plurality of contact pins are arranged in a pattern that matches a corresponding footprint pattern of contacts on said first circuit board and said second circuit board.

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4. The apparatus as recited in claim 3, wherein each of at least a portion of said plurality of contact pins is configured to mate to a respective contact on said first circuit board and said second circuit board.

5. The apparatus as recited in claim 1, wherein each of said plurality of contact pins is configured to form an electrical connection to a respective contact on each of said first circuit board and said second circuit board in response to said first circuit board being positioned adjacent to said first side of said dielectric substrate and said second circuit board being positioned adjacent to said second side of said dielectric substrate and having a compressive force exerted on said first circuit board and said second circuit board causing said pliable material to deform.
6. The apparatus as recited in claim 1, wherein said pliable resistive material includes a carbon based polymer.
7. The apparatus as recited in claim 1, wherein said pliable resistive material has a resistance value greater than five ohms.
8. A test system comprising:
- a system board including a footprint pattern of contacts for connection to a device under test;
 - a test board for conveying signals output from said device under test to an analyzer, wherein said test board includes a corresponding footprint pattern of contacts; and
 - an apparatus positioned between said system board and said test board for conveying said signals output from said device under test from said system board to said test board;

wherein said apparatus includes:

a dielectric substrate having a first side forming a first surface and a
second side forming a second surface; and

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a plurality of contact pins each configured to convey a respective one of
said signals between said first side and said second side;

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wherein each of said plurality of contact pins extends through said
dielectric substrate and protrudes beyond said first surface and said
second surface; and

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wherein one or more of said plurality of contact pins is formed using a
pliable resistive material.

9. The test system as recited in claim 8, wherein said pliable resistive material has
sufficient conductivity to convey said signals between said first side and said second side.

10. The test system as recited in claim 8, wherein said plurality of contact pins are
arranged in a pattern that matches said footprint pattern of contacts on said system board
and said test board.

11. The test system as recited in claim 10, wherein each of at least a portion of said
plurality of contact pins is configured to mate to a respective contact on said system board
and said test board.

12. The test system as recited in claim 8, wherein each of said plurality of contact pins
is configured to form an electrical connection to a respective contact on each of said

system board and said test board in response to said system board being positioned adjacent to said first side of said dielectric substrate and said test board being positioned adjacent to said second side of said dielectric substrate and having a compressive force exerted on said system board and said test board causing said pliable resistive material to
5 deform.

13. The test system as recited in claim 8, wherein said pliable resistive material includes a carbon based polymer.

10 14. The test system as recited in claim 8, wherein said pliable resistive material has a resistance value greater than five ohms.

15 15. A method of conveying electrical signals between a first circuit board and a second circuit board, said method comprising:

providing a dielectric substrate having a first side forming a first surface and a second side forming a second surface; and

20 conveying said electrical signals between said first side and said second side using a plurality of contact pins, wherein each of said plurality of contact pins extends through said dielectric substrate and protrudes beyond said first surface and said second surface;

25 wherein one or more of said plurality of contact pins is formed using a pliable resistive material.

16. The method as recited in claim 15 further comprising arranging said plurality of contact pins in a pattern that matches said footprint pattern of contacts on said first circuit board and said second circuit board.
- 5 17. The method as recited in claim 16 further comprising mating each of at least a portion of said plurality of contact pins to a respective contact on said first circuit board and said second circuit board.
- 10 18. The method as recited in claim 15 further comprising each of said plurality of contact pins forming an electrical connection to a respective contact on each of said first circuit board and said second circuit board in response to said first circuit board being positioned adjacent to said first side of said dielectric substrate and said second circuit board being positioned adjacent to said second side of said dielectric substrate and having a compressive force exerted on said first circuit board and said second circuit board causing said pliable resistive material to deform.
- 15 19. The method as recited in claim 15, wherein said pliable resistive material includes a carbon based polymer.
- 20 20. The method as recited in claim 15, wherein said pliable resistive material has a resistance value greater than five ohms.